

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated June 15, 2006 (U.S. Patent Office Paper No. 20060610). In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1-8 and 10-11 stand for consideration in this application, wherein claim 9 is being canceled without prejudice or disclaimer, while claim 1 is being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention.

All amendments to the application are fully supported therein. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Prior Art Rejections

The First 35 U.S.C. §103(a) rejection

Claims 1-9 and 11 were rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Kaise et al. (U.S. Patent No. 6,483,495 B2) in view of Applicants' admitted prior art (AAPA). As mentioned above, claim 9 is being cancelled, and therefore the rejection of claim 9 is moot. Otherwise, this rejection is respectfully traversed for the reasons set forth below.

According to the Manual of Patent Examining Procedure (M.P.E.P. §2143),

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both not be found in the prior art, not in the applicant's disclosure.

Furthermore, referring to *In re Fulton*, M.P.E.P. §2143. 01 (I) sets forth as follows:

The court emphasized that the proper inquiry is “whether there is something in the prior art as a whole to suggest the desirability, and thus obviousness, of course, of making the combination,” not whether there is something in the prior art as a whole to suggest that the combination is the most desirable combination available.

Furthermore, referring to *In re Mills*, M.P.E.P. §2143. 01 (III) sets forth as follows:

The mere fact that reference can be combines or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

Claim 1

The Examiner alleged that Kaise teaches all the elements recited in claim 1 except the active elements being fabricated in discontinuous converted regions and having a direction of movement of carriers therein a direction of grain boundaries of silicon films forming the discontinuous converted regions. The Examiner further alleges that AAPA discloses the elements that Kaise fails to teach, and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to fabricate Kaise’s active element included in a plurality of stages of circuit sections on polysilicon films in a way as taught by AAPA, to provide the active element with high mobility, thus to provide an image of better quality. Applicants respectfully disagree.

Claim 1 now recites that an image display device has an active matrix substrate provided with a pixel region having a plurality of pixels arranged in a matrix configuration, and a drive circuit region disposed outside of said pixel region for supplying drive signals to said plurality of pixels via interconnection lines, wherein said active elements in the pixel region and said active elements in said drive circuit region are formed of a portion of a polysilicon film formed over a substantially entire area of a substrate of said image display device, said drive circuit region comprises a plurality of stages of circuit sections successively processing an externally supplied display signal to produce a drive signal to be supplied to said pixel region, each of said plurality of stages of circuit sections having a different function, at least one of said plurality of stages of circuit sections is provided with active elements fabricated in discontinuous converted regions formed of roughly-band-shaped-crystal silicon films having grain boundaries continuous in generally one direction, and said active elements have a direction of movement of carriers therein in a direction of said grain boundaries.

To form the device recited in claim 1, a polysilicon film is initially formed on the entire surface of an insulating substrate. Discontinuous converted regions formed of roughly-

band shaped crystal silicon films in the image display device recited in claim 1 is formed by irradiating a laser such as solid-state laser or pseudo CW laser selectively onto the polysilicon film in a drive circuit region in order to form the active element in the drive circuit region. In other words, both the active elements in the pixel region and the active elements in the drive circuit region are formed of a portion of the same polysilicon film initially formed on the entire surface of an insulating substrate.

In contrast, Kaise merely shows in Fig. 1A that transistors 102a and 103a in the drive circuitry region 150 are mounted at the peripheries. The structure of active elements or transistors in the drive circuit region of Kaise is completely different from that recited in claim 1. Furthermore, Kaise does not show or expressly or implicitly suggest a polysilicon film is formed over the entire surface of an insulating surface.

As the Examiner admitted, Kaise does not expressly teach the active elements being fabricated in discontinuous converted regions and having a direction of moment of carriers therein a direction of grain boundaries of silicon films forming the discontinuous converted regions. AAPA shows fabricating active elements in discontinuous converted regions and having a direction of moment of carriers therein a direction of grain boundaries of silicon films forming the discontinuous converted regions where the active elements in the pixel region and the active elements in the drive circuit region are to be formed of a polysilicon film which is initially formed on the entire surface of an insulating substrate. Because in Kaise, the transistors in the drive circuit region are not formed of the same thin film as the transistors in the pixel region, Kaiser provides no motivation for combining AAPA's teaching with the Kaise's disclosure.

In sum, there is no suggestion or motivation in either Kaise or AAPA to combine these features explicitly or implicitly, or in the knowledge generally available to one of ordinary skill in the art at the time the invention was made to embody all the features of the invention as recited in claim 1. Accordingly, claim 1 is not obvious in view of all the prior art recited.

Claims 2-8, 11

As to dependent claims 2-9 and 11, the arguments set forth above with respect to independent claim 1 are equally applicable here. The corresponding base claim being allowable, claims 2-8 and 11 must also be allowable.

The Second 35 U.S.C. §103(a) rejection

Claim 10 were rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Kaise and AAPA as applied to claims 1-9 and 11 above, and further in view of Nagata et al. (U.S. Patent No. 6,118,505). This rejection is respectfully traversed for the reasons set forth below.

As to dependent claim 10, the arguments set forth above with respect to independent claim 1 are equally applicable here. The corresponding base claim being allowable, claim 10 must also be allowable.

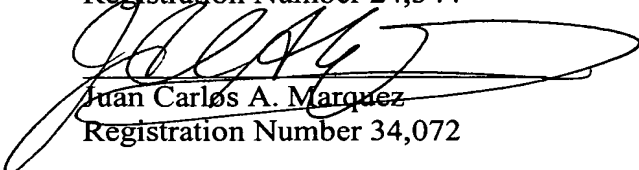
Conclusion

In view of all the above, Applicants respectfully submit that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

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